



Operation Clean Sweep®

Port of Antwerp Activity Report 2019



Alfaport Voka

Alfaport Voka is the platform of the private port sector in the port of Antwerp and is part of the Chamber of Commerce Antwerp-Waasland. Alfaport Voka is a lobby group from and for the Antwerp private port sector representing some 400 companies organised in five industry sectors all active in logistic services within the port (shipping agents, forwarders, warehousing companies, stevedores and Belgian ship owners). Alfaport Voka aims for a sustainable, cost-efficient, accessible and facilitating port as a platform for its customers.

www.voka.be/antwerpen-waasland/alfaport



essenscia

essenscia vzw/asbl, the Belgian Federation for Chemistry and Life Sciences industries, is a multisectoral umbrella organisation that represents the numerous sectors of activities in the field of chemicals and the life sciences.

www.essenscia.be



PlasticsEurope

PlasticsEurope is one of the leading European trade associations with centres in Brussels, Frankfurt, London, Madrid, Milan and Paris. We are networking with European and national plastics associations and have more than 100 member companies, producing over 90% of all polymers across the EU28 member states plus Norway, Switzerland and Turkey. The European plastics industry makes a significant contribution to the welfare in Europe by enabling innovation, creating quality of life to citizens and facilitating resource efficiency and climate protection. Over 1.6 million people are working in close to 60,000 companies (mainly small and medium sized companies in the converting sector) to create a turnover of more than 360 bn EUR per year. The plastics industry includes polymer producers – represented by PlasticsEurope, converters – represented by EuPC – and machine manufacturers – represented by EUROMAP.

www.plasticseurope.org



Port of Antwerp

The Port of Antwerp is the leading European integrated maritime and logistics hub and second largest seaport in Europe. Optimal connections through a vast network of highway, railway and inland waterways guarantee a smooth throughput to all of the major European industrial and consumer areas.

The Port of Antwerp offers a unique blend of cargo handling, industrial activity and logistics operations, right at the heart of Europe. With a wide variety of specialized handling techniques, extensive and bonded warehousing, logistics and added value services, the Port of Antwerp is a truly integrated port.

www.portofantwerp.com



Voka – Chamber of Commerce and Industries

The Antwerp-Waasland Chamber of Commerce and Industry is an independent, politically neutral interprofessional organisation for the companies and businesses. The Chamber of Commerce and Industry (CCI) aims at stimulating economic activity and promoting a better entrepreneurial climate by lobbying, networking and offering specific services to businesses and organising dialogues with public authorities and politicians.

The Chamber of Commerce and Industry Antwerp-Waasland unites more than 3,000 corporate members in the two districts Antwerp and Waasland. Our members operate in a variety of sectors and their size varies from startups, young SMEs with just a few employees, to well-established multinationals with thousands of people on their payroll.

The Chamber of Commerce and Industry Antwerp-Waasland is part of the Voka alliance, consisting of 6 Voka – Chambers of Commerce and Industry in Flanders, together with the Voka vzw – Flemish Employers' Association. The Voka alliance unite more than 18.000 businesses from all sectors and represent 67% of the employment and the added value in the private sector in Flanders.

www.voka.be/antwerpen-waasland

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1. Introduction

Not only is the Port of Antwerp (PoA) considered to be one of the biggest Europe's hubs for the production of a wide range of polymers, it is also recognised as a major hub for polymers warehousing, used in further distribution in- and outside Europe. Thus, by actively fighting against spills of plastic raw materials* – pellets, flakes and powder – the Antwerp plastics value chain holds a crucial responsibility in ensuring a better and cleaner environment in the area of the Port of Antwerp.

The journey towards zero pellet loss in the port of Antwerp started in 2017, when the **Zero Pellet Loss (ZPL) Initiative** was jointly launched by **Alfaport Voka, essenscia, PlasticsEurope, PoA authority** and **Voka – Chamber of Commerce and Industries**.

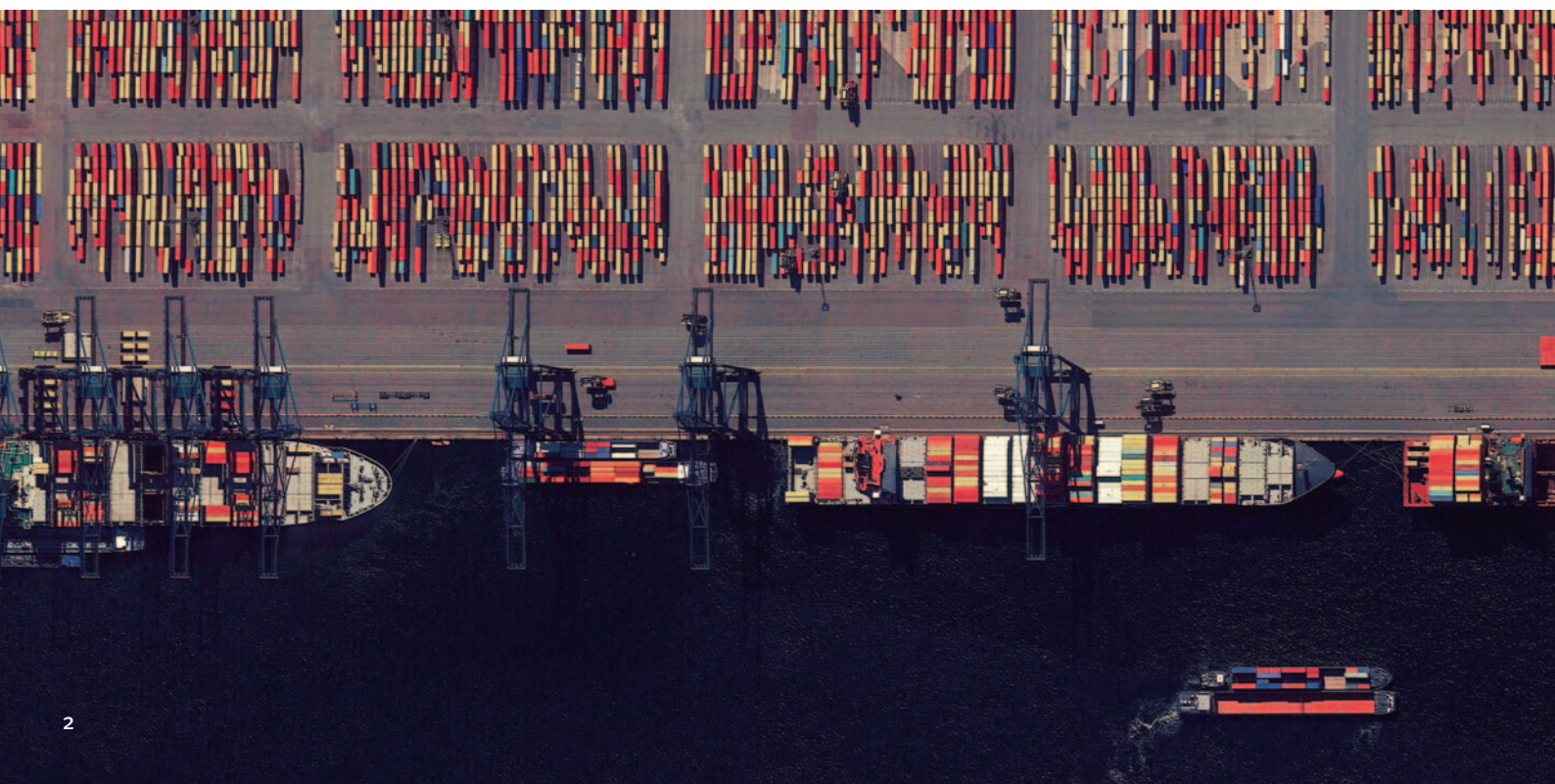
The aim of this value chain collaboration, within the Operation Clean Sweep® (OCS) programme, is to unite forces in preventing plastic pellets from ending-up in the environment – by implementing a common methodology of pellets containment at each step of the value chain, and by continuing to raise awareness on the issue.

Pellet loss containment is a difficult process. It requires all potential leakage points to be addressed with both short and long term solutions, which would be adapted to the differences in size, layout, technical setup and processes at each industrial site and to each type of handling activity.

The collaboration of all partners handling plastic pellets – not only polymer producers – is key to achieving this common goal. Raising awareness of all value chain stakeholders, irrespective of their size, is therefore essential.

The Operation Clean Sweep® Port of Antwerp Activity Report is published on a two-year cycle. Its first edition was issued by PlasticsEurope at the launch of the ZPL Initiative, in autumn 2017. The present report, for the first time, was jointly drafted by Alfaport Voka, essenscia, PlasticsEurope, PoA authority and Voka – Chamber of Commerce and Industries. It presents the **OCS implementation** by the Antwerp polymers producers and logistics companies, and outlines a **new OCS action plan for Antwerp** in order to **intensify the fight against pellet loss**.

*Hereafter, plastics raw materials (pellets, flakes and powder) shall be referred to as “plastic pellets” or “pellets”.



2. The plastics value chain fully committed to zero pellet loss



2.1. Operation Clean Sweep® (OCS) signatories in the Port of Antwerp

Major polymers producers active in the Port of Antwerp are taking part in the OCS programme. In June 2019, PlasticsEurope adopted its new Operating Rules, making OCS compulsory for all its members as of 1st January 2020 (cfr page 13).

BASF	Borealis	Covestro
ExxonMobil	INEOS	INEOS – Styrolution
EVAL Europe	LANXESS	SABIC
Solvay	Total	

List of polymer producers who signed OCS

Five large companies from the logistics sector and one freight forwarder have joined the programme.

OCS signatories represent 27 facilities in the Port of Antwerp

OCS signatories in the Port of Antwerp are encouraged to pursue their efforts in implementing the OCS programme, thanks to the support of several federations that are joining forces to achieve the goal of zero pellet loss.

Bertschi
De Rijke
Elite Paloume
Katoen Natie
Schmidt Belgium
Van Moer

List of logistics and freight forwarding companies who signed OCS

essenscia	Belgian Federation for Chemistry and Life Sciences Industries
Febetra	Royal Federation of Transporters and Logistic Providers
KVBG	Royal Association of Logistics Chain Managers
Port of Antwerp authority	Authority of the Port of Antwerp
PlasticsEurope	European Association of Plastics Producers
TLV	Transport en Logistiek Vlaanderen

List of organisations who signed OCS

Alfaport Voka and Voka – Chamber of Commerce and Industries did not sign the OCS pledge but support the promotion of the OCS programme.

2.2. The Antwerp Zero Pellet Loss Initiative

Under the initiative of Alfaport Voka, essenscia, PlasticsEurope, PoA authority and Voka – Chamber of Commerce and Industries, polymers producers and logistics companies continue to work together to further extend the involvement in the OCS programme and its implementation.

The **Antwerp Zero Pellet Loss Initiative** gathers a high level steering group and two Task Forces (TF), meeting on a regular basis:

- The high level **steering group** includes representatives from Alfaport Voka, essenscia, PlasticsEurope, PoA authority and Voka – Chamber of Commerce and Industries, in order to foster collaboration to achieve a port free of pellets emissions.
- The **Zero Pellet Loss Task Force (ZPL TF)** is composed of representatives of the previously mentioned sector associations, and technical and environmental experts delegated from polymers producers and logistics companies active in the port area. The aim of the ZPL TF is to gain a better understanding of the pellet loss issue and to map the hotspots of pellets accumulation in the port area. Based on this, corrective clean-up actions of the most critical areas are executed while a monitoring system is being applied by the PoA authority.
- The **Antwerp OCS TF** is composed of OCS signatories in the Port of Antwerp, and aims at sharing best practices regarding prevention and containment measures.



3. Pellet loss situation and current initiatives in the Port of Antwerp

Despite significant efforts already put in place by the polymers producers and logistics companies in the port area, the objective of zero pellet loss has not been achieved yet. Historical and new pellets pollution can still be observed in the area of the port, unfortunately.

Since the launch of the Zero Pellet Loss Initiative in Antwerp in 2017, polymers producers and logistics companies have agreed to get involved in the monitoring of the port for possible hotspots of pellets accumulation – carefully carried out by the PoA authority.

“The PoA authority is monitoring four hotspots of pellet loss in the port area. The loss at the hotspots on the road is limited in quantity but is occurring on a frequent basis. The quantity of loss at the hotspots located in the port’s marine environment is much larger in comparison to the loss on the road, but is occurring depending on several specific weather conditions” says the Port of Antwerp authority.



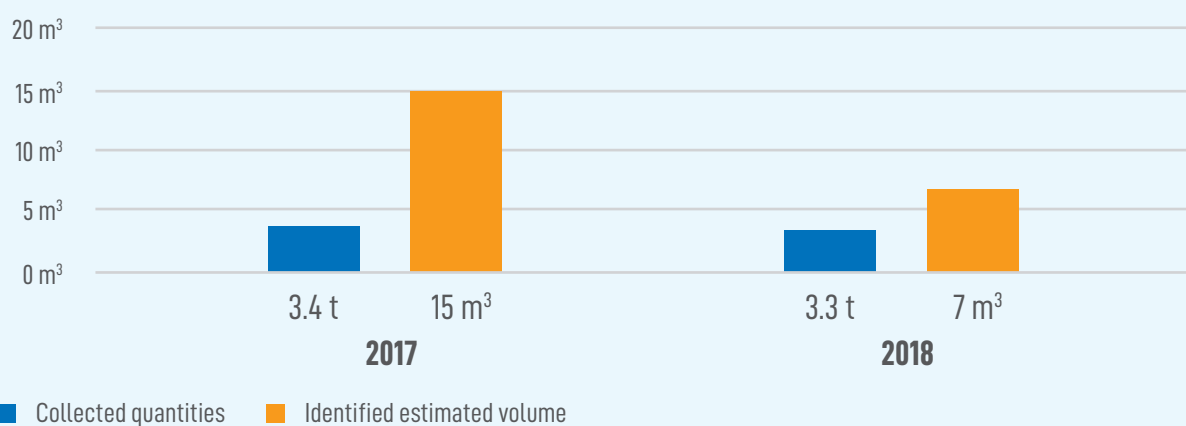


In parallel, the majority of polymers producers and two logistics companies have voluntarily committed to financially support regular clean-up actions, performed by the PoA authority, where accumulation points were identified. In 2018, eleven clean ups were organised at five different locations where

pellets were accumulating, for an estimated amount of 3.3 tons tons of removed pellets.

Below graph shows the PoA authority's estimated quantities of removed pellets in 2017 and 2018, as well as the estimated volume of loss, at hotspots.

Results of the clean-up actions and monitoring campaign at hotspots



Source: Port of Antwerp authority

The dynamics of the pellets emissions in the port area also need to be better understood. Therefore, essenscia, PlasticsEurope and PoA authority have commissioned the University of Antwerp to

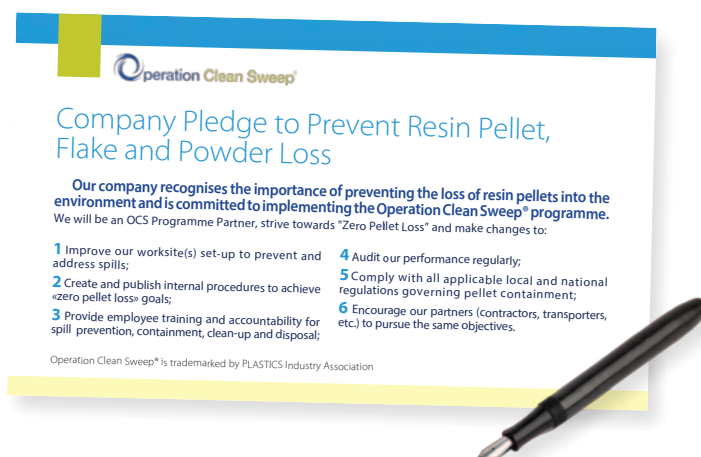
analyse the proportion of pellets that are flushed from the road into the sewage system, ending up in the port's marine environment, and to help identify additional remedial measures.

4. Implementation of pellet spill prevention measures

Signing the OCS pledge is an important first step for meeting the objective of zero pellet loss. The second step is the implementation phase which entails undertaking steps prescribed by the OCS pledge.¹

To give a comprehensive picture of the value chain involvement in tackling pellet loss in the port, the OCS signatories in the Port of Antwerp agreed to perform a basic reporting on their OCS implementation.

They accepted to report on the basis of the PlasticsEurope OCS questionnaire.² The questionnaire was reviewed by Flora & Fauna International (NGO) for the PlasticsEurope OCS report 2018.³

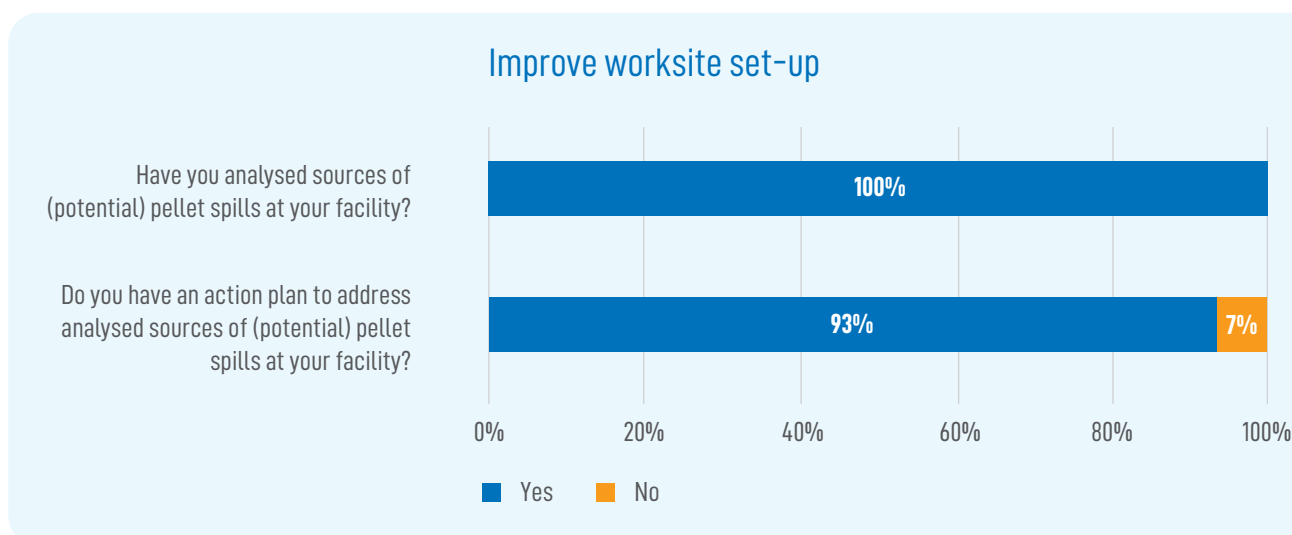


4.1. OCS implementation – questionnaire results

Below results reflect the aggregated input of all OCS signatories in the Port of Antwerp (27 facilities in total) – with the exception of one polymers producer who only outsources its storage activities, and a freight forwarder who has no facility in the Port of Antwerp, but a representation office.

Improve worksite set-up to prevent and address spills

The OCS questionnaire findings show that respondents who have committed to the programme have improved their worksite set-up to prevent and clean-up pellet spills. All have analysed their potential sources of pellet loss, and most of them have an action plan to address them. To improve their worksite management, the facilities adopted several measures and actions adapted to their individual needs and capacities, ranging from sieves in drains on the site, to the installation of cleaning kits, to bulk blowing stations to remove pellets from trucks before they leave the facilities.



¹ See EU OCS report 2018: <https://www.plasticseurope.org/en/resources/publications/1132-operation-clean-sweep-report-2018>

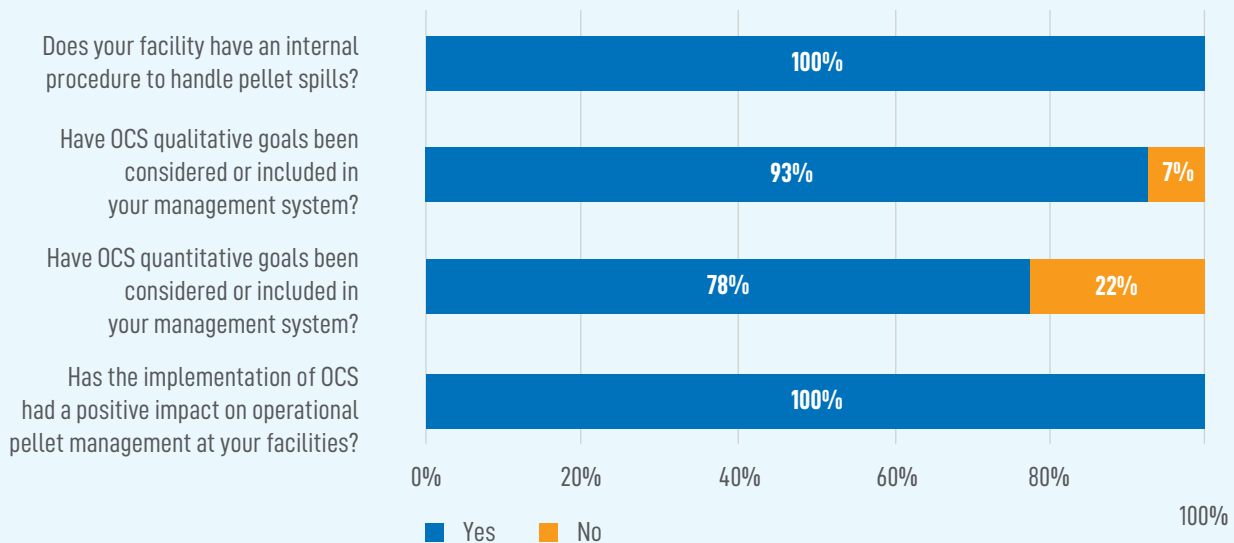
² Available in annex of the EU OCS report 2018: <https://www.plasticseurope.org/en/resources/publications/1132-operation-clean-sweep-report-2018>

³ See EU OCS report 2018: <https://www.plasticseurope.org/en/resources/publications/1132-operation-clean-sweep-report-2018>

Internal procedures towards eliminating pellet loss

The results show that all respondents' facilities have internal procedures to address pellet spills. Moreover, most of them have introduced qualitative pellet loss reduction goals in their management system, and 78% of them have adopted quantitative targets. In addition, all facilities responded that OCS improved their operational pellet management at their facilities. Examples of improved pellet management highlighted by the respondents include support from top management, increased employee awareness and improved procedures, such as faster response to pellet spills and shorter cleaning intervals.

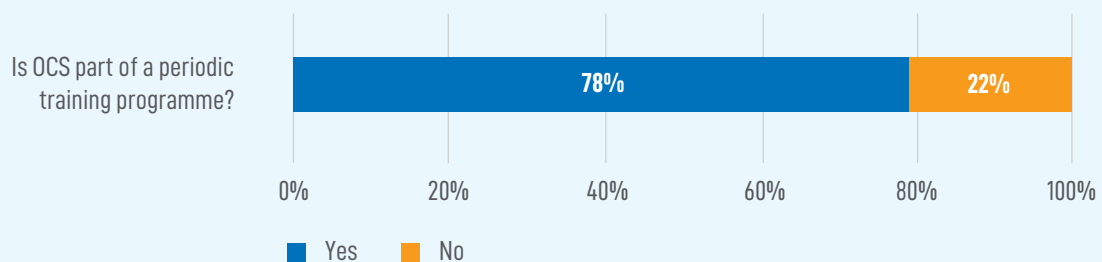
Internal procedures



Employee training and accountability

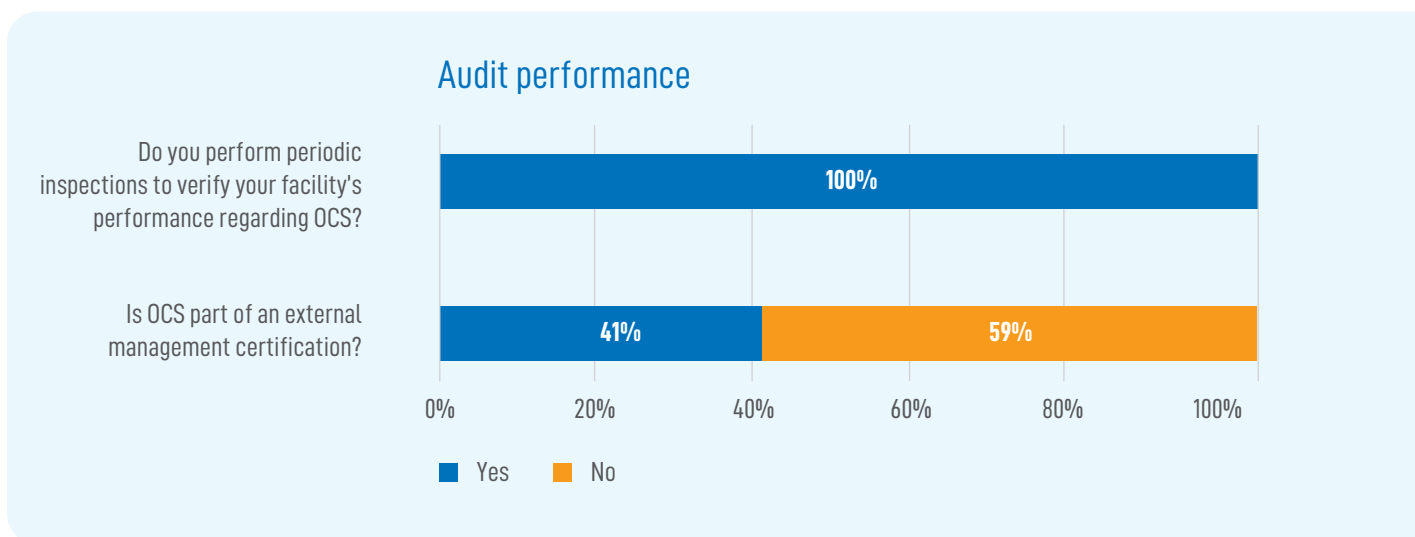
78% of the facilities include OCS as part of a periodic training program to raise employees' awareness about pellet loss prevention, containment and handling. According to respondents, trainings can take place at different intervals, ranging from monthly to biannually, as well as on demand. Most facilities have put an annual program in place. The training can be dedicated solely to OCS, or OCS can be integrated into a more general training (e.g. environmental, health & safety or waste management training). Among the facilities that conduct periodic training sessions, the majority reported that 100% of employees take part in it.

Employee training and accountability



Audit performance

For all facilities, OCS compliance is integrated in internal and/or external audit. All facilities perform periodic inspections to verify their performance in relation to OCS. For 41% of facilities surveyed, however, OCS compliance is part of an external management certification scheme such as ISO 14001, ISO 9001 or EMAS.

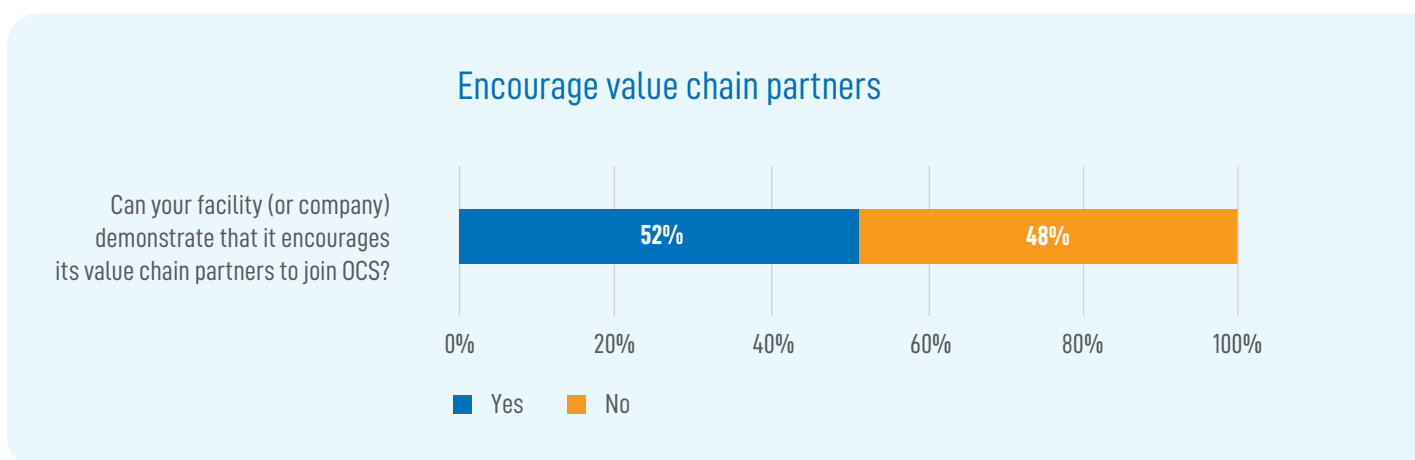


Compliance with applicable national or local regulations

In Belgium, just like at EU level or in other EU Member States' national or local regulations, there are, to date, no regulations that specifically address pellet containment and spills. Nonetheless, all facilities have a process in place to verify their compliance with existing local and national regulations, even if they are not pellet specific.

Encourage value chain partners to join OCS

52% of the surveyed facilities is actively engaged in encouraging value chain partners to join OCS. Reach-out activities reported by the respondents include customer information packages, the introduction of OCS in contracts and product handling documents for contractors.



Examples of best practices

The PlasticsEurope OCS reports 2017⁵ and 2018⁶ provide an overview of several best practices and concrete actions undertaken by polymers producers to address pellet loss.

In terms of overall implementation of OCS, the results of the assessment show that polymers producers and logistics companies keep putting efforts into the implementation of basic measures (e.g. availability of appropriate cleaning equipment to easily and immediately remove spillage) and with regards to installations (e.g. sieves in drains to prevent pellets from entering the wastewater). In addition, polymers producers and logistics companies keep on implementing and developing more advanced and innovative cleaning, as well as preventive solutions.

However, the questionnaire's results also show significant room for improvement, such as in encouraging value chain partners to join OCS and in auditing performances.



⁵ See EU OCS report 2017: <https://www.plasticseurope.org/en/resources/publications/367-plasticseurope-operation-clean-sweep-report-2017>

⁶ See EU OCS report 2018: <https://www.plasticseurope.org/en/resources/publications/1132-operation-clean-sweep-report-2018>

5. Towards more transparency and accountability



Taking the pellet loss issue very seriously, the polymers producers and logistics companies are setting up measures to achieve zero pellet loss.

5.1. A European OCS certification scheme

The polymers producers committed to the development of a European OCS certification scheme with third party auditing. The OCS certification scheme – to be jointly developed by PlasticsEurope and its members – will enable the European plastics industry and all value chain handlers of pellets to transparently and jointly demonstrate their efforts towards zero pellet loss. This approach is the most effective and efficient one to enhance transparency and further accelerate the implementation of the OCS programme.

5.2. Polymers producers make OCS part of their DNA

PlasticsEurope has also made it compulsory for its members to have signed up to the OCS programme by 1st January 2020. This implies that all PlasticsEurope member companies and manufacturing sites will be covered – a major step forward in the implementation of this programme. Hopefully, this is a strong signal which will help trigger the implementation of the OCS programme by the rest of the plastics value chain.

All PlasticsEurope members' facilities in Belgium are participating in the OCS programme.



OPERATION CLEAN SWEEP
OBJECTIVE: ZERO PELLET LOSS

5.3. Way forward and next steps in the Port of Antwerp

Promoting OCS within the transport sector

In order to keep moving forward and further improve, polymers producers, logistics companies, Alfaport Voka, essenscia, PlasticsEurope and PoA authority, together with the Belgian transport federations – Febetra and Transport Logistiek Vlaanderen – are taking the initiative to jointly develop pictograms to promote OCS with truck drivers. These will provide clear instructions to prevent pellet loss at loading and unloading points, as well as during transport. This OCS material meant for truck drivers will be distributed by transport federations, as well as at the logistics and polymers producers' sites.

Historical pollution

While measures are being taken to prevent and clean-up any new plastic pellet spills, historical pollution also needs to be tackled. In this respect, the polymers producers and logistics companies support the recent initiative of the PoA authority to address the complex challenge of cleaning-up the polluted area of the Galgeschoor natural reserve, while preserving its precious local biotopes. PoA authority launched an open innovation call with the objective of finding an appropriate technical solution by the end of 2019. In 2020, PoA authority will help implementing the selected project in the Galgeschoor reserve.



www.portofantwerp.com/en/galgeschoor-plastic-challenge



A NEW OCS ACTION PLAN FOR ANTWERP

Given the significant pellet loss issue in the Port of Antwerp, as shown on pages 5 and 6, and taking into account the areas for improvement as indicated in the questionnaire results, polymers producers and logistics companies want to **intensify the fight against pellet loss**.

With the support of Alfaport Voka, essenscia, PlasticsEurope, PoA authority and Voka – Chamber of Commerce and Industries, polymers producers

and logistics companies in the PoA established a **plan with concrete actions** in relation to worksite equipment, procedures, auditing performances and outreach, as well as cleaning actions.

The implementation of this action plan, which headlines are presented on the next page, will start as of November 2019. Progress will be reported in the Operation Clean Sweep® Port of Antwerp Activity Report 2021.

1 Worksite equipment

- Companies to take necessary measures to prevent discharge to drainage (e.g. containment area for pellets handling, cleaning location on site) and implement structural storm waste overflow protection at hotspots/high risk locations. These measures may vary depending on site. By analogy with process safety, companies implement a system of “root cause analyses”/risk management for pellet loss incidents
- Alfaport Voka, essenscia, PlasticsEurope and Voka – Chamber of Commerce and Industries to investigate with PoA authority how to best implement minimum requirements to contain daily and incidental pellet spills, on logistics and polymers producers’ sites
- Companies provide – wherever possible – space and material for truck drivers to clean their containers on site. Companies offer the possibility to truck drivers to dispose the liners of their previous container load, on site

2 Procedures

- Companies to test proper and adequate cleaning system, and adopt appropriate level of inspection for loaded trucks before they leave loading site
- Companies to incorporate OCS in guidelines for transporters coming to logistics and/or polymers producers’ sites

3 Auditing performances

- Companies to implement the OCS certification system – to be jointly developed by PlasticsEurope and its member companies (in line with the European Commission's Strategy for Plastics) – as pilot project, including third party auditing programme as part of existing environmental or quality management systems (e.g. SQAS for logistics)

4 Outreach

- Procurement departments of polymers producers to include the goal of zero pellet loss in contracts with logistics service providers and link binding consequences in case of infringement
- Polymers producers and logistics companies to continue exchanging best practices and encouraging new (or additional) companies of the Antwerp plastics value chain to join OCS
- Companies to undertake feasibility study on collection of liners in the PoA area, in collaboration with transporters and terminals

5 Cleaning

- In addition to existing monitoring and clean-up actions of the PoA authority, polymers producers and logistics companies to take responsibility for regularly cleaning up spills on roads around the sites
- Regarding accidental loss, polymers producers and logistics companies commit to establish an early warning alert system for quick remedial actions

6. Conclusion



The huge area of the Port of Antwerp, combined with the high volume of polymers production, shipping and handling, makes the Antwerp Zero Pellet Loss Initiative even more challenging than elsewhere.

Plastics producers and logistics companies engaged in OCS in the Port of Antwerp will continue to be actively committed to fighting pellet loss, and to even intensify their efforts. However, important players in the Antwerp plastics value chain are still missing out to join the common effort.

Even the smallest companies handling small amounts of pellets are important players impacting the pellet loss situation in the Port of Antwerp. All

containment efforts made by all OCS signatories in the port area can be negatively affected by any leakage, from a small or a large company. Alfaport Voka, essenscia, PlasticsEurope, Port of Antwerp authority and Voka – Chamber of Commerce and Industries invite the entire plastics value chain to join the Operation Clean Sweep® (OCS) Initiative and take action towards zero pellet loss.

Given the non-satisfactory pellet loss situation in the port area, each partner in the plastics value chain needs to engage and continue efforts to tackle this issue, thereby securing an environment free of plastic pellets.



7. Further actions in Belgium

Since pellet handling is not limited to Antwerp, Alfaport Voka, essenscia, PlasticsEurope, Port of Antwerp authority and Voka – Chamber of Commerce and Industries are engaged in reaching out to more stakeholders in Belgium – polymers producers, converting companies, logistics companies, forwarders, transporters and recyclers – irrespective of their size, to sign OCS and take action.

Plastiwin, the Walloon cluster for plastics processing activities, and Go4circle, the Belgian association representing the private waste treatment sector, also joined the OCS programme with the aim to encourage their members to fight pellet loss.

www.operationcleansweep.eu



A joint report of Alfaport Voka, essenscia, PlasticsEurope, Port of Antwerp authority and Voka – Chamber of Commerce and Industries



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